

the progression of fungal nail infections. In addition, vascular insufficiency, impaired wound healing, and compromised immunologic status associated with diabetic foot increase the risk of secondary infections in diabetic patients with dermatophytosis. Dermatophytosis are considered to affect more frequently patients with type 2 diabetes mellitus (DM-2), specially onychomycosis and Tinea pedis. The purpose of this study was to compare the dermatophytoses frequency between 40 patients with DM-2 and 40 healthy persons of either sex, 40 years old or more at a Tonekabon University Hospital (The northern Iran).

Materials and methods: The diagnoses were suspected lesions after direct microscopical examinations of the discharge materials with Potassium hydroxide preparation which revealed the presence of hyaline arthrospores, fungal culture (Scc and DTM media) and histological examination which showed an inflammatory infiltrate with fungal elements in the dermis.

Results: The prevalence of onychomycosis and Tinea pedis (positive culture and/or microscopy) in the diabetic and control groups was 20%, 17% and 8%, 8.8% respectively, the difference being statistically significant. Presence of onychomycosis and Tinea pedis were found to correlate significantly with increasing age (40 years old or more) and male (2.99 times of female) gender in both diabetic and control groups. After controlling for age and sex, a stepwise logistic regression demonstrated that significant predictors for onychomycosis and Tinea Pedis included a family history of onychomycosis, concurrent intake of immunosuppressive therapy and peripheral vascular disease. The predominant dermatophyte of Cultures of puncture materials and skin biopsies confirmed the diagnosis identifying *Trichophyton rubrum* and *T. mentagrophytes var interdigitale*, in the first and second case respectively.

Conclusions: Diabetics were found to be 2.5 times more likely to have onychomycosis and Tinea Pedis than the controls. Predisposing factors included increasing age, male gender, duration of diabetes, impaired peripheral circulation, peripheral neuropathy retinopathy, family history of onychomycosis and Tinea Pedis, concurrent intake of immunosuppressive agents and peripheral vascular disease. This study shows that there does seem to be an increased prevalence of dermatophytosis in diabetic patients as compared with a control, nondiabetic patient. Statistical correlation among dermatophytosis and blood glucose level the time suffering the disease was observed. The high susceptibility to dermatophytes and Tinea pedis infection showed to be associated with age and with the diabetic type 2 condition in those patients.

doi:10.1016/j.ijid.2008.05.755

The Investigation of Epidemiology of Superficial and Cutaneous Mycosis in Referrals to Tehran Clinic for Medical Mycology During the Last Five Years (2003–2007)

A. Nasrollahi Omran^{1,*}, J. Hashemi², F. Abasian¹, M. Ghane¹, S. Mohammadi Nakhjiri¹

¹ Islamic Azad University of Tonekabon Branch, Tonekabon, Iran (Islamic Republic of)

² Islamic Azad University of Tehran Branch, Tehran, Iran (Islamic Republic of)

Objective: Identification of the dermatophytosis species and superficial mycosis agents may be useful in directing the survey for environmental and animal sources of infection to educate the danger of acquiring infections from infected persons and other animals.

Material and Methods: For five years in the period February 2003 to June 2007 we experimented 5500 patient suspected to these mycosis referred to Tehran clinic for Medical Mycology. Skin sampling were taken by scraping from patients and collected. Diagnosis was confirmed by direct microscopy and culture according to the mycology routine laboratory methods.

Results: Our results showed that totally 2271 cases (41.3%) of them suffered from superficial and cutaneous mycosis. Dermatophytosis with 1279 cases (56.31%) was the most common infection among the these mycosis, rest were 356 cases (15.68%) Tinea Versicolor, 283 cases (12.76%) Erythema, 243 cases (10.7%) cutaneous candidosis, 110 cases (4.96%) saprophytic cutaneous mycosis. The frequency of clinical types anatomic site involvement of dermatophytosis was groin, thus tinea cruris 495 cases (38.7%) was predominant clinical form of all ring worm infection seen, rest were 300 cases (23.46%) tinea unguium, 150 cases (11.72%) tinea pedis, 150 cases (11.72%) tinea manuum, 128 cases (10%) tinea capitis, 34 cases (2.55%) tinea barbae. *Trichophyton mentagrophytes* was most common etiological agent (41.66%, 200 cases) of sampling positive culture, rest encountered dermatophytes including: 148 cases (30.83%) *Epidermophyton floccosum*, 112 cases (23.33%) *T. rubrum*, 9 cases (1.96%) *T. tonsurans*, 8 cases (1.87%) *T. verrucosum*, 4 cases (.83%) *M. canis*. Age groups between 1 and 70 were effected by this disease, with a slightly higher group was 20–29 age (23.91%). The most common clinical type of cutaneous candidosis was onychomycosis and *Candida albicans* was most common etiological agent cutaneous candidosis. The common sites of involvement of tinea versicolor were neck and trunk and *Malassezia globosa* was most common etiological agent this disease, rest were *M. furfur* and *M. sympodialis*. Saprophytic fungi as *Aspergillus* SP., *Mucor* SP., *Scopulariopsis* SP., *Fusarium* SP. were most common saprophytic cutaneous mycosis agents.

Conclusion: This study showed highlights a common problem (Antropophilic species) in Tehran and suggests that further measures regarding public health and specially personally hygiene must be undertaken in order reduced risk superficial and cutaneous mycosis.

doi:10.1016/j.ijid.2008.05.756